

THE EFFECTS OF ENTRY LEVEL EDUCATION
AND LENGTH OF EMPLOYMENT ON STAFF
NURSE NEED SATISFACTION

A Thesis Presented to the
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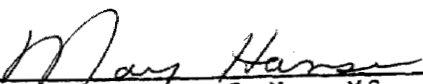
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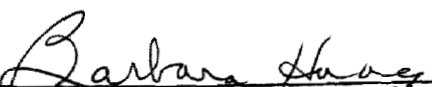
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Abstract

The purpose of this study was to examine the differences in employment need satisfaction between hospital staff nurses prepared at the baccalaureate and those prepared at the associate level. In addition, this study examined the influence of length of employment on need satisfaction.

The random sample consisted of 400 registered nurses working in five counties of Iowa. The modified Porter Need Satisfaction Index and Demographic Questionnaire were mailed to these subjects. Forty-four baccalaureate prepared and 29 associate prepared nurses met the criteria for inclusion in the study.

Statistical analysis of the research hypotheses failed to determine statistically significant differences in all need satisfaction categories based solely on educational preparation. Baccalaureate prepared nurses working 6 or more years were found to be significantly less satisfied with the need for self actualization than those working 0-5 years. No significant differences were found in need satisfaction based on the interaction of education and length of employment. Both individual and organizational differences may have contributed to the lack of significance found. Also, a small sample size may have contributed to these findings. Descriptive analysis was performed for need satisfaction and need importance of associate and baccalaureate prepared nurses.

Because similarities were found in the ranking of needs for the associate and baccalaureate prepared nurses, nurse educators need to evaluate these findings to determine the need to include need satisfaction in their curriculum. Implications for nursing management include promoting strategies that may improve the esteem, autonomy, and actualization of practicing nurses. Because satisfaction has been closely linked to productivity, these changes may improve the quality of nursing care and ultimately benefit the consumer.

CHAPTER I

INTRODUCTION

Purpose

The purpose of this study was to examine the differences in employment need satisfaction between hospital staff nurses prepared at the baccalaureate and those prepared at the associate level. In addition, this study examined the influence of length of employment on need satisfaction.

Satisfaction of various work groups has been studied by nursing researchers (Larson, Lee, Brown & Shorr, 1984; Simpson, 1985; Slavitt, Stamps, Piedmont & Haase, 1979; Stewart-Dedmon, 1988). The concern of this research was the identification of work related factors which contribute to satisfaction or dissatisfaction. Through identification of work related factors, management may be able to improve employee motivation, productivity, and reduce employee turnover (Blalack, 1986).

Background

The issue of entry into practice has been debated for the past 25 years. The heart of this debate is the promotion of nursing to professional status. In order to accomplish this, the American Nurses' Association (ANA) proposed two functional levels: professional and

technical. The proposed basic educational preparation for professional nursing is the baccalaureate level. The technical level nurse would be prepared at the associate level. In the hospital setting these two types of nurses would have different duties. The baccalaureate prepared nurse would plan and direct the care of patients, and the associate prepared nurse would assist in the planning of care and would be the primary care giver (ANA, 1965).

There has been a great deal of research conducted to differentiate the baccalaureate and associate graduate on a number of variables. Variables studied include professionalism, autonomy, self-actualization, role stress, and work satisfaction. Some studies have found a significant difference in these variables by type of education (Brief, Van Sell, Aldag & Morris, 1982; Goldstein, 1980; Murray & Morris, 1982; Richards, 1972; Stewart-Dedmon, 1988). Stewart Dedmon (1988) found a significant difference in satisfaction with certain job characteristics between the associate and baccalaureate prepared nurse.

The feeling of satisfaction by an employee is an indicator of the motivation to work. The employee who sees work as satisfying will be motivated to come to work. In contrast the employee who sees work as

dissatisfying will not be motivated to come to work (Slocum, Susman & Sheridan, 1972).

Productivity is thought to be related to work satisfaction. Productivity is an inherent issue of both budget pressures and the shortage of nurses which hospitals currently face (Curry, Wakefield, Price, Mueller & McCloskey, 1985; Larson et al, 1984; Slavitt et al, 1979). Identifying areas of satisfaction and dissatisfaction, based on the needs of nurses working in hospitals, could help administration increase nurse's work satisfaction.

Turnover has been a widely studied phenomenon and studies have used a model of work satisfaction in determining staff nurse turnover. In the literature, it is suggested that work satisfaction is one determinant of staff nurse turnover (Mobley, 1977). Although this relationship is consistent in findings reported, it usually accounts for less than 16% of turnover. Mobley, Griffeth, Hand & Meglino, (1979) found that as satisfaction increases turnover decreases. Although this research does not attempt to equate work satisfaction with the productivity and turnover rates, it does have implications for both.

Hypotheses

The research hypotheses were:

1. There will be a statistically significant difference in the reported need satisfaction of the baccalaureate and associate prepared nurses.
2. There will be a statistically significant difference in the reported need satisfaction of the baccalaureate prepared nurse based on length of employment within a hospital.
3. There will be a statistically significant difference in the reported need satisfaction of the associate prepared nurse based on length of employment within a hospital.
4. There will be a statistically significant difference in the reported need satisfaction between the baccalaureate and associate prepared nurse based on length of employment within a hospital.

Definitions

For purposes of this study, need satisfaction was defined as the extent to which rewards received from work meet or exceed an individual's perceived equitable level of rewards. Need satisfaction was measured by identifying the difference between the degree of expectation and the degree of fulfillment an employee perceives with respect to a given need (Porter, 1961).

In this study need satisfaction was measured by the modified Porter Need Satisfaction Index.

For purposes of this study, entry level education was defined as the basic educational program completed by the individual to prepare for registered nurse licensure. The two types of educational preparation studied were the associate degree in nursing and the baccalaureate degree in nursing. Entry level education was determined by subject self-report.

For purposes of this study, length of employment was defined as the amount of time, in years, employed 20 hours or more per week, in the current hospital organization. Length of employment was determined by subject self-report.

Implications

The results of this study may have implications for nursing education and nursing management practice. The findings of this study could be used to assist the nurse educator in curriculum development. Educators of baccalaureate and associate students could plan a curriculum that reflects the needs of students upon graduation. The educator may need to add content on the realities the nurse will face in the work force. The majority of new graduates from both types of programs begin their practice in the hospital setting.

The literature points to the difficulty educators face in preparing students for that work role. As a result, the new graduate may experience what is termed "reality shock" (Huckabay, 1979). Through identification of the practicing nurse's needs, based on their educational preparation, the nurse educator can incorporate experiences into the curriculum that prepare students for the real world.

Through the identification of needs, nursing management can restructure the organization to enhance nurses's work satisfaction. Management will be able to offer nurses opportunities to meet the needs identified by this study. For example, management can offer greater recognition of achievement with incentives and provide opportunities for growth and participation. In this way, nursing management could reduce turnover and increase productivity.

CHAPTER II

LITERATURE REVIEW

The purpose of this study was to examine the differences in employment need satisfaction between hospital staff nurses prepared at the baccalaureate and those prepared at the associate level. In addition, this study examined the influence of length of employment on need satisfaction. To achieve this purpose, literature was reviewed in the following areas: entry into practice, review of work satisfaction research, review of the theoretical basis for this study, and research using this theory. A summary concludes the review.

Entry Into Practice

Since the passage of the American Nurses' Association (ANA) position paper on entry into practice, nursing educators and researchers have studied the inherent differences that exist between registered nurses (RN) within the three levels of educational preparation. The three levels are the associate degree, hospital diploma, and baccalaureate degree. The ANA position paper asserted that professional practice in nursing be performed by the baccalaureate graduate. Also, it asserted that the minimum entry level for technical nursing be the

associate graduate. Professional practice would encompass the tasks of caring for, coordinating, teaching, and directing all who give nursing care and the use of research to improve nursing practice. Technical practice includes carrying out nursing measures, with an emphasis on skill (ANA, 1965).

Many researchers have compared graduates of these three programs on a variety of characteristics. Wren (1971) conducted a descriptive study of the characteristics of the students entering the three educational programs. From the research, prototypes of the three types of nursing students were developed. Wren found that the average baccalaureate student was unmarried, a top student in high school, a top scorer on the SAT, chose to enter nursing based on a desire to help people, and for personal achievement. The prototype of the associate student was found to be married, older, more likely to have a low SAT score and high school ranking, more likely to work in a hospital, chose to enter nursing based on wanting to help people, and had always wanted to be a nurse. The prototype of the diploma student was found to be unmarried, more likely to have a higher SAT and high school ranking, and chose nursing as a career in order to help people or for personal achievement.

A study of senior nursing students in baccalaureate programs was conducted in 1984 and 1985. Two hundred seventy schools were included in this study. Two separate groups of students were studied. One group received questionnaires in 1984 and another group received questionnaires in 1985. This study concluded that reasons for entering these baccalaureate programs were: greater opportunities available to them, a desire for a college degree, a desire to pursue an advanced degree, and the status of the degree (Cassells, Redman, & Jackson, 1986). A similar study performed on 192 senior nursing students in 41 associate programs found the reasons for choosing nursing as a career to be: helping others, attaining a degree, and doing something meaningful. The author points out that the associate program is generally chosen because it is a short-term, cost effective way to prepare for a career. Often the associate program is chosen as it is easier to complete when confronted with family and home responsibilities (Hooper, 1987).

A 1972 research study was conducted to define differences between graduates of baccalaureate, associate, and diploma nursing programs. The convenience sample consisted of 361 graduating seniors in 13 schools of nursing. A statistically significant

difference in professional orientation at the .05 level was found between the three types of students. The baccalaureate student was found to have more of a professional orientation than the associate or diploma nursing student (Richards, 1972).

Research conducted by Murray and Morris (1982) also studied professionalism of students in the three types of nursing programs. A convenience sample of 224 senior students from three nursing programs was used. A statistically significant difference at the .001 level of significance was found in the professional autonomy of the baccalaureate student when compared to the associate student.

Goldstein (1980) studied a convenience sample of 204 baccalaureate and 59 associate students from 20 Illinois nursing programs to ascertain if graduating seniors differed significantly in self-actualization. Using the Personal Orientation Inventory questionnaire, statistically significant differences were found between these groups. Differences between the groups were found in all scales associated with leadership, with the baccalaureate student scoring higher than the associate student.

In a study conducted in 1979, a statistically significant correlation between professional

educational background and more role stress on the job was found for 157 nurses sampled. These nurses were randomly selected and stratified by educational preparation. A statistically significant difference at the .05 level was found in role conflict, and a statistically significant difference at the .01 level was found in role ambiguity. For both measures of role stress, the practicing nurse with a baccalaureate degree showed significantly higher role stress. This study also sought to correlate high role stress with low work satisfaction. At the .001 level, the baccalaureate staff nurse showed less work satisfaction than the associate and diploma prepared nurse (Brief et al., 1979).

Work Satisfaction

Work satisfaction of employees within organizations has been an area of interest for psychological, management, and sociological researchers since the early 1920s. The concept of work satisfaction was thought to be important, as a correlation was seen between work satisfaction and productivity, absenteeism, and turnover (Grunenberg, 1976).

Nursing researchers began looking at work satisfaction of nurses in the 1970s. The nursing profession was facing a nursing shortage and, through

research, an attempt was made to identify areas of work satisfaction for nurses within hospital organizations. There has been a large and costly turnover of nursing personnel in the hospital structure for many years. Hospitals have experienced a yearly turnover as high as 35% to 60%. As of 1978, the costs of replacing one RN for the hospital was documented to be as high as \$2000.00 (Seybolt, Pavitt & Walker, 1978). Work satisfaction studies have shown a correlation between low work satisfaction and subsequent turnover for employees. Although this correlation has been documented as accounting for only 16% of the turnover in organizations, it has been the most widely studied area in turnover research (Mobley et al., 1979).

Work satisfaction of hospital staff nurses has been found to be a determinant of turnover in some studies (Curry et al., 1985; Seybolt et al., 1978). In a study conducted by Seybolt et al. (1978) turnover at various stages in staff nurses' employment was predicted by satisfaction with differing work factors. Six hundred forty seven female RNs from a large west coast hospital were used in the study. This study found that the relationship between overall work satisfaction and turnover intentions was greatest in subjects employed for 6 months to 1 year, followed by those employed 1 to

3 years.

Research conducted by McCloskey (1974) studied how personal characteristics of 94 staff nurses would influence hospital staff nurse turnover. The sample studied was randomly selected from RNs employed in two large metropolitan hospitals who had resigned in the previous 4 months. One of the characteristics studied was educational level. The purpose was to identify and rate rewards and incentives that would keep RNs from resigning. Turnover in this study was not found to be significantly predicted by educational preparation.

A study by Slavitt et al. (1979) found that work satisfaction of 555 hospital staff nurses from two hospitals did differ based on characteristics of the staff. In this study, the level of satisfaction was significantly related to the position, unit, educational level, experience, years of employment, age, shift, and hours. It was found that RNs with diplomas were the most highly satisfied. Satisfaction was seen to increase with age and years of employment at the hospitals.

A study conducted by Larson et al. (1984) also looked at how work satisfaction of hospital employees differed based on educational entry level. Although the mean satisfaction scores were not significantly

different based on education, the authors point to the homogeneity of the sample, and the small sample size as possible reasons for this.

The two-factor theory developed by Herzberg in 1964 has been increasingly used in studies of nurses' satisfaction. Herzberg has asserted that satisfaction and dissatisfaction are separate entities arising from different aspects of work. Satisfaction is the result of achievement, recognition, growth, and advancement. Dissatisfaction results from environmental factors surrounding the job such as salary, security, relationships, and policy (Herzberg, 1968). A study conducted by White and Maguire (1973) used Herzberg's theory to identify satisfaction of 34 nursing supervisors. Another study using Herzberg's theory looked at 30 new graduate staff nurses' satisfaction (Cronic-Stubbs, 1977). Both of these studies, concluded that work satisfiers and dissatisfiers were, for the most part, consistent with Herzberg's theory for nursing personnel.

Everly and Falcione (1976) stated that classifying work satisfaction into the intrinsic/extrinsic dichotomy presented by Herzberg oversimplified the situation in nurses. These researchers found that relationships accounted for the largest variation in

satisfaction for this sample of 144 female RN staff nurses.

A study conducted by Simpson (1985) found the highest work satisfaction score was reported by the assistant director of nursing and the lowest work satisfaction score was reported by staff nurses. This study included 497 nurses in a convenience sample from five acute care hospitals in British Columbia.

Theoretical Framework

One of the most widely known and accepted theories of human motivation is that formulated by Maslow. Maslow's theory of human motivation perceives the person as a whole. This holistic theory of motivation asserted that an individual must be thought of as a whole person in order to be fully understood. He asserted that the entire individual is motivated, not just a part of the person. Maslow (1970) stated that individuals function at their personal best when they are striving for something that is lacking. In this theory motivation is determined by a number of basic needs that are inherent to all individuals. These basic needs are in hierarchy of importance. The basic needs included in the hierarchy, in order from lowest to highest, are physiological, safety and security, belongingness, esteem, and self-actualization. In

order for the individual to move up this hierarchy, the preceding needs must be satisfied (Maslow, 1970).

The first level of need is physiological. The physiological needs are those most basic and include food, air, sleep, shelter, water, and oxygen.

The next needs on the hierarchy are safety and security. These needs include stability, protection, order, and freedom. In society the needs for safety are seen in the selection of a job that is secure and the desire to have savings and insurance programs.

The need to belong is the next step on the hierarchy. Included in this category of needs are friends, relationships, and family.

Next is the need for self-esteem. Included in this category is the desire for a favorable evaluation of one's self, the need for self-respect, and the need for esteem from others. The need for achievement, adequacy, competence, and independence are included. When these needs are being satisfied the individual will have a feeling of self-confidence and strength.

The final and highest need on the hierarchy is for self-actualization. This need is met when the individual reaches full capacity of functioning. The emergence of this need depends on the prior satisfaction of the lower level needs.

The basic needs are generally desired in the hierarchy as described above. However, Maslow (1970) points out that there are exceptions to the hierarchy. For example, some individuals may seek esteem more than love from others. However, it is the unsatisfied needs which will assert the greatest influence on an individual's behavior. Individuals move through the continuum of this hierarchy throughout their lives. This movement is dependent upon the challenges and changes that an individual encounters. Another characteristic of Maslow's hierarchy is that the basic needs can be either unconscious or conscious. In the average person, however, the motivating needs are unconscious.

Maslow (1970) has concluded that growth toward self-actualization is natural and necessary. Growth in this context means development of talents, capacities, wisdom, and character. Even though man has the capacity for growth, only a small percentage of people reach their full potential. Maslow's theory was used in this study.

The most comprehensive research concerned with need satisfaction, utilizing the Maslow theory, has been conducted by Porter (1961). Porter has altered the Maslow hierarchy by adding the need for autonomy and

eliminating the physiological need category. Porter asserts that organizations have satisfied the physiological needs of their employees, and thus, it is unnecessary to test for this. The autonomy need category added by Porter measures the satisfaction of such things as decision making ability, participative goal setting, and authority inherent in a position. The autonomy need is most commonly associated with the need for esteem in Maslow's hierarchy. However, autonomy is put into a new category since it is somewhat distinct from other more common items associated with esteem. The autonomy need is inserted in the hierarchy between the esteem and self-actualization categories.

Porter (1961) used this modified model in the study of need satisfaction between levels of management in business organizations. He specifically studied the perceived deficiencies in need fulfillment between first line and middle management. The Porter Need Satisfaction Index was used in the study. The sample size was 139: 64 first line managers and 75 middle managers from three business organizations. The sample was not randomly selected. The findings showed that lower level management positions were more likely to produce deficiencies in fulfillment of needs. The

largest deficiencies in need fulfillment for both groups were in the higher level needs of esteem, autonomy and self-actualization. Self-actualization was identified as the most deficient and important by both groups studied. Porter's original work on need satisfaction had limitations. The sample was not randomly selected, nor was it a large sample. The findings were not generalizable to the total population of first line and middle managers.

Slocum et al. (1972) used a revised Porter instrument in their study. These researchers used need satisfaction to draw conclusions about job performance for professional and paraprofessional hospital personnel. The sample was composed of 39 professional and 41 nonprofessional employees of a medical center in Pennsylvania. Professional employees were head nurses and staff nurses. Paraprofessional employees were licensed practical nurses, aides, and clerks. The study does not specify whether these groups were chosen randomly. The findings suggested that significant differences existed between professional and nonprofessional employees' need satisfaction at $p < .05$ level of significance, and that satisfaction of the need for self-actualization significantly related to job performance for professionals at the $p < .05$ level of

significance. This research had the limitations of a non-random, small sample which precluded generalization.

A study conducted by Benton and White (1972) used the Maslow theory of motivation to obtain measures of need satisfaction for RNs. A random cluster sample of 565 nurses was obtained and classified according to occupational groups. The measurement tool used was developed by the researcher, using the Porter tool scaling of responses. The six job factors found to have statistically significant deficiencies were patient care, appreciation, congenial work associates, inservices, written policies, authority, and responsibility. The differences in felt deficiencies were greatest between administrative nurses and the various nursing groups, rather than between occupational groups. This research may not have used a large enough sample of each occupational group. The sample size of occupational groups ranged from 29-89. Also, Benton and White (1972) did not take extraneous variables such as education, employment status, age, and employment length into account in their study. This may also account for the lack of correlations between groups.

Stewart-Dedmon (1988) conducted a comparative

survey of nursing graduates of three schools of nursing; associate degree, diploma degree, and baccalaureate degree program. The tool used was developed by the researcher, but satisfaction was defined using Porter's definition, and scaled according to the Porter Need Satisfaction Index. A total of 216 participated from these three programs. The researcher found a statistically significant difference in satisfaction with job characteristics by type of nursing education. Overall, baccalaureate and diploma prepared nurses were found to be significantly less satisfied than associate degree prepared nurses. When surveyed one year after graduation, the researcher found that only 13% of the baccalaureate nurses stated they had received a realistic education in preparation for hospital work. This compares with 56% of diploma prepared and 32% of associate degree prepared nurses.

Blalack (1986) conducted a study of the need satisfaction of hospital staff nurses to identify areas of dissatisfaction. Blalack used a modified version of the Porter questionnaire. A sample of 100 staff nurses at a large metropolitan hospital was used. Findings suggested that staff nurses are relatively satisfied with the nature of their work and they feel secure in their positions. However, the nurses were dissatisfied

with opportunities for growth and development and participation in goal setting. Also, the nurses reported a low level of esteem received from the job. Blalack's research was a descriptive attempt to find areas of dissatisfaction in staff RNs. Blalack's study may not be generalizable to other hospital staff nurses, as a random sample of nurses was not obtained. Also, Blalack's design did not take extraneous variables into account.

Summary

The previous discussion began by presenting the entry into practice issue facing the nursing profession. Research that has studied the differences that exist in graduates of the three types of programs have been presented. Differences have been found in the areas of professionalism, leadership, role stress, and work satisfaction. Baccalaureate graduates were found to have greater professionalism and leadership than the associate graduate. The baccalaureate graduate was also found to have greater role stress and less overall work satisfaction than the associate graduate in these studies.

Research exploring work satisfaction of registered nurses utilizing employee factors, work factors, and theories were presented. Factors were found to affect

work satisfaction of registered nurses. The findings of research studies that use educational level of the nurse as an employee factor in measuring satisfaction differed. Often, this is not the major emphasis of the research. The findings of some of these studies were questionable, as the samples were not randomized.

Maslow's theory of human motivation and research using this theory to identify the need satisfaction of employees has been presented. Findings demonstrated that RNs do consistently view aspects of their work as dissatisfying. Certain variables, such as entry level education and length of employment, were not taken into account in the research. Therefore, correlations between variables and the need satisfaction of RNs are not possible. Entry level education and length of employment could be important variables in the need satisfaction of hospital staff nurses. Research taking these variables into account may more specifically identify reasons for dissatisfaction of staff nurses.

CHAPTER III

METHODOLOGY

The purpose of this study was to examine the differences in employment need satisfaction between hospital staff nurses prepared at the baccalaureate and those prepared at the associate level. In addition, this study examined the influence of length of employment on need satisfaction. In this chapter the research design, subjects, instruments, psychometric properties of the instruments, scoring of the instruments, procedures, and data analysis are described.

Design

The research design is descriptive correlational. Polit and Hungler (1987) define the descriptive correlational design as follows:

As in the case of other types of ex post facto research, the investigator engaged in a descriptive correlational study has no control over the independent variables. That is, there is no experimental manipulation or random assignment to groups. Unlike other types of ex post facto studies, however ... the aim of descriptive correlational is to describe the relationship among variables rather than to infer cause-and-

effect relationships (p. 147).

The independent variables that were studied included entry level education and years of employment in the current position within a hospital. This study related these independent variables to the dependent variable, need satisfaction.

Instruments

Two instruments were used in the study. The first was the Porter Need Satisfaction Index, as modified by Blalack (1986) (see Appendix A). The second instrument was the Demographic Questionnaire developed by this researcher (see Appendix B).

The original Porter Need Satisfaction Index was presented in 1961, and was developed from Maslow's need theory to test for need satisfaction of management employees working in business organizations. The original instrument included many of the need categories of the Maslow hierarchy, excluding the physiological needs and inserting autonomy needs. The original instrument was used in the study of satisfaction felt in management positions.

The modification made to this instrument by Blalack (1986) was in the wording. Blalack excluded the word "management" from the questions and inserted the term "position". Blalack then used this instrument in the

study of staff nurse satisfaction.

Demographic information was obtained using the Demographic Questionnaire (see Appendix B). The information obtained included: entry level education, current educational level, current enrollment in an educational program, employment status, position held, length of employment, ownership of institution, age, and gender.

Psychometric Properties

Since the only modification made by Blalack (1986) was changing the term "management" to "position," the psychometric data of the original instrument was used for the modified instrument. Price (1972) asserted that the Porter instrument asked about job satisfaction indirectly. Many other questionnaires ask the respondent to indicate the degree of satisfaction. Porter collected the data on satisfaction by two measures, actual and anticipated need fulfillment. Price stated it is good practice to collect data by two, rather than any single procedure. Also, Price pointed out that this instrument was guided by an explicit theory that is missing in other research concerned with satisfaction. Blalack (1986) pointed out that since the respondents are not directly questioned about their satisfaction, the tendency toward a response-set bias is diminished

the tendency toward a response-set bias is diminished using this tool.

A study conducted by Wanous and Lawler (1972) was performed to determine the extent to which nine measures of satisfaction measured the same thing. Satisfaction data were collected using each of the measurement tools and was correlated with direct satisfaction measures. Also, a multitrait-multimethod matrix analysis of data was performed. Porter's operational definition of job satisfaction was one of the nine studied. The analysis suggested that it is possible to validly measure satisfaction using different job facets.

There is little data concerning the reliability of the Porter Need Satisfaction Index. Porter did not speak to reliability in initial studies. Blalack (1986) also did not speak to reliability. Therefore, a test-retest procedure was performed, using this tool, to substantiate the reliability for measuring the need satisfaction of respondents. Subjects were selected by the researcher. These subjects met all requirements for inclusion in the study but were excluded from the actual study. Both associate graduates and baccalaureate graduates were selected for inclusion. All were employed full time as staff nurses within a

hospital, and were not currently enrolled in a baccalaureate or graduate program. The modified Porter Need Satisfaction Index (see Appendix A) and Demographic Questionnaire (see Appendix B) were mailed to these subjects. A letter requesting their participation (see Appendix C) was sent to these subjects. They were retested using the same questionnaire two weeks later. These subjects were also asked to respond to the clarity of the instruments. The comments received were used to assure clarity, prior to sending it to the study sample. Completion and return of the questionnaires constituted consent to participate. Confidentiality of subjects was assured. The names of subjects did not appear on the questionnaires. A code number, matched to their name, appeared on the first page of both questionnaires. This allowed for tracking of return and assured no duplication of results. Upon return of the second mailing of the questionnaires, the subject's name and code number was destroyed.

A total of 27 subjects were selected and mailed the questionnaires. The total response was 17, a 60% response rate. Two returned questionnaires were excluded because the respondents were not employed full time. Total usable questionnaires received were 15, a

55% usable response rate. Eight of the respondents were associate prepared and 7 of the respondents were baccalaureate prepared.

Statistical analysis was based on the usable response rate. Pearson product-moment correlation coefficients were computed for all need satisfaction and need importance categories, subgrouped by degree and overall degrees (see Appendix D). Results of the analysis of associate prepared nurses (Table 1) showed low correlational coefficients for the need categories social satisfaction (.30) and social importance (.33). This indicates that for these categories there is a low correlation between the first and second test scores obtained. Results of the analysis of baccalaureate prepared nurses (Table 2) showed negative low correlational coefficients for the need categories security satisfaction (-.11) and social satisfaction (-.19). This indicates that for these need categories there is a low negative correlation between the first and second test scores obtained. Also, low correlational coefficients for the need categories social importance (.31), esteem satisfaction (.44), and esteem importance (.28) were obtained. This indicates that for these need categories there is a low correlation between the first and second test scores

obtained. Results of the analysis overall degrees (Table 3) showed a low negative correlational coefficient for the need category security satisfaction (-.09). This indicates that for this need category, a low negative correlation between the first and second test scores was obtained. Low correlational coefficients were obtained for the need categories social satisfaction (.12) and social importance (.31). This indicates that for these need categories there is a low correlation between the first and second test scores obtained. The low correlational coefficients obtained indicate, for these need categories, that the reliability of the measure is not substantiated.

Scoring

The modified Porter Need Satisfaction Index (see Appendix A) consists of 13 statements arranged in a random fashion. The statements pertain to the 5 need categories of: security, social, esteem, autonomy, and self-actualization. The statement that pertained to the security need category was #2. The statements that pertained to the social need category were #11 and #13. The statements that pertained to the esteem need category were #6, #8, and #9. The statements that pertained to the autonomy need category were #1, #4, #10, and #12. The statements that pertained to the

actualization category were #3, #5, and #7. For each of the 13 statements 3 separate responses were scaled: a. how much is there now, b. how much should there be, c. how important is this to you. A 7-point Likert-type scale was used. A score of 1 was a minimum score, and a score of 7 was a maximum score.

A satisfaction score was calculated by subtracting the score on response a. how much is there now, from the score on response b. how much should there be, for each of the 13 need category questions. The lower the score obtained, the higher the satisfaction. Therefore, a score of 0 shows the highest level of satisfaction. Separate scores were calculated for each of the need categories. Means were calculated for each need category. Need importance, how important a given job factor is to the individual, was measured by the response to question c. Means were calculated from the score on part c (Blalack, 1986).

Procedures

Because data were collected from human subjects, the Drake University Human Subjects Review Subcommittee of the Faculty Senate approved this proposal prior to data collection.

A request for subject selection was sent to the Iowa Board of Nursing. The Board of Nursing randomly

selected 400 subjects, who met the study criteria, from Polk, Linn, Scott, Woodbury, and Cerro Gordo counties in Iowa. These counties were chosen because they have large metropolitan centers and a large number of associate and baccalaureate graduates. The criteria used for inclusion were:

1. Baccalaureate or associate degree in nursing as entry level education.
2. Employment 20 hours or more per week as a staff nurse.
3. Employment in a hospital setting.
4. Not currently enrolled in a baccalaureate or master's degree program.

The modified Porter Need Satisfaction Index and Demographic Questionnaire (see Appendix A and B) were mailed to the individuals chosen. Packets were sent to each nurse which contained the Questionnaires, cover letter (see Appendix E), self addressed stamped envelope, and request for results form (see Appendix F). The cover letter identified the researcher, described the study, and provided instructions for returning the questionnaires and request for results form. A reminder letter (see Appendix G) was sent to the subjects who had not responded after two weeks. Completion and return of the questionnaires constituted

subjects was maintained. The names of subjects did not appear on the returned questionnaires. However, a code number matched to their name appeared on the first page of both questionnaires. This allowed tracking of return and assured no duplication of results. Upon return of the questionnaires or 2 months after the final mailing of the questionnaires, the subjects name and code number was destroyed.

Data Analysis

Demographic characteristics were graphically presented in table form. The table included: number of associate and baccalaureate nurses obtained, the percentage obtained, mean age, and mean length of employment.

A ranking of response scores for need satisfaction and need importance of the need categories were presented for each group, associate and baccalaureate, in a table format. This information showed how each group viewed the satisfaction and importance of each of the need categories.

In presenting the descriptive components of the data obtained, frequency distributions for need satisfaction of each of the five need categories were calculated for associate and baccalaureate subjects. From this information the mode, median, and mean for

need satisfaction and need importance were calculated and presented in a table. The variability of the two groups were calculated for each need category using the standard deviation of the mean.

To test research hypotheses #1, #2, and #3 independent t tests were computed to compare the mean scores of the two groups under investigation, associate and baccalaureate. A $p < .05$ level of significance was accepted.

To test research hypothesis #4, a two-way analysis of variance procedure was conducted, with a $p < .05$ level of significance. The two independent variables present in hypothesis #4 were length of employment and educational preparation. Analysis of variance procedures compared the variance within each group with the variance between groups.

CHAPTER IV

ANALYSIS

In this section, characteristics of the survey sample will be described. Group demographic data will be presented, with a breakdown based on educational preparation. Statistical analysis related to the research hypotheses will follow. This section will conclude with a descriptive analysis of the need categories based on educational preparation.

Description of the Sample Subjects

A random sample of 400 registered nurses was used in this study. From the 400 subjects identified, the total response was 158, or a 39.5% response rate. A total of 73 surveys could be used for this study, 44 baccalaureate prepared and 29 associate prepared. Eighty-five of the respondents were excluded from the database because they did not meet the requirements for inclusion. Seven subjects did not answer portions of the demographic questionnaire. Four subjects worked less than 20 hours per week. Fifteen subjects were working in management positions. Twenty-six subjects worked outside of a hospital organization. Twenty-one subjects were currently enrolled in a baccalaureate or master's degree program. Twelve were not generic baccalaureate graduates. All statistical analyses are

based on the usable response rate. Tables 4 and Table 5 describe the demographic data of associate and baccalaureate nurses. Table 4 describes the total response and useable response rate and percentages obtained (see Table 4).

Table 4

Demographics of Sample

Group	Total	Total	Usable	Usable
	Obtained	Percent	Obtained	Percent
Associate	57	28.5	29	14.5
BSN	101	50.5	44	22

Table 5 describes the following demographic information of the usable respondents: mean age and range, mean length of employment, percent with 0-5 and 6 or more years of employment, and percent employed full time or part time (see Table 5).

Table 5

Demographics of Sample

Group	Mean Age	Age Range	Mean LOE	Percent LOE 0-5	Percent LOE 6+	Percent FT/PT
Assoc.	36.21	23-63	4.83	65	35	69/31
BSN	31.33	23-48	5.24	61	39	80/20

LOE = Length of Employment

FT = Full time

PT = Part time

Similarities between associate prepared and baccalaureate prepared respondents were found in the areas of mean length of employment and employment status. Mean age of the respondents were similar for both groups.

Analysis of Hypotheses

Each research hypothesis will be presented separately. Statistical analysis and discussion of the findings are presented for each research hypothesis.

Hypothesis 1 stated "There will be a statistically significant difference in the reported need satisfaction of the baccalaureate and associate prepared nurse." Independent t tests were conducted to determine whether there was a significant difference in need satisfaction

satisfaction of the five need categories based on educational preparation (see Tables 6-10).

Table 6

t test Results of Comparing Security Need Satisfaction
Based on Educational Preparation

Educ Prep	N	Mean	t Value	Probability
Associate	29	1.10		
BSN	44	1.11	-0.03	0.97

Table 7

t test Results of Comparing Social Need
Satisfaction Based on Educational Preparation

Educ Prep	N	Mean	t Value	Probability
Associate	29	0.43		
BSN	44	0.49	-0.32	0.75

Table 8

t test Results of Comparing Esteem Need
Satisfaction Based on Educational Preparation

Educ Prep	N	Mean	t Value	Probability
Associate	29	1.44		
BSN	44	1.45	-0.04	0.97

Table 9

t test Results of Comparing Autonomy Need
Satisfaction Based on Educational Preparation

Educ Prep	N	Mean	t Value	Probability
Associate	29	1.46		
BSN	44	1.45	0.05	0.96

Table 10

t test Results of Comparing Actualization Need
Satisfaction Based on Educational Preparation

Educ Prep	N	Mean	t Value	Probability
Associate	29	1.83		
BSN	44	1.71	0.46	0.64

There were no significant differences at the $p < .05$ level, noted in responses based on educational preparation. Therefore, the first hypothesis was not supported.

Hypothesis 2 stated "There will be a statistically significant difference in the reported need satisfaction of the baccalaureate prepared nurse based on length of employment within a hospital." Independent t tests were conducted to determine whether there was a significant difference in need satisfaction of the five need categories based on the length of employment, 0- 5 years and 6 or more years, of the baccalaureate prepared nurses (see Tables 11-15).

Table 11

t test Results of Security Need Satisfaction of
Baccalaureate Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> Value	Probability
0-5	27	1.07		
6+	17	1.18	-0.24	0.81

Table 12

t test Results of Social Need Satisfaction of
Baccalaureate Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> Value	Probability
0-5	27	0.43		
6+	17	0.59	-0.73	0.47

Table 13

t test Results of Esteem Need Satisfaction of
Baccalaureate Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> value	Probability
0-5	27	1.21		
6+	17	1.82	-1.82	0.07

Table 14

t test Results of Autonomy Need Satisfaction
of Baccalaureate Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> value	Probability
0-5	27	1.37		
6+	17	1.59	-0.82	0.42

Table 15

t test Results of Actualization Need Satisfaction of
Baccalaureate Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> value	Probability
0-5	27	1.44		
6+	17	2.14	-2.39	0.02

There was a significant difference noted in responses of the baccalaureate nurses, based on length of employment, for the need category, Actualization. The mean satisfaction score of the baccalaureate nurses with 6 or more years seniority was higher than those with 0-5 years seniority. Therefore, the baccalaureate prepared nurses with 6 or more years seniority

responded significantly less satisfaction than those with 0-5 years seniority. The second hypothesis was supported for the need area of self-actualization only.

Hypothesis 3 stated "There will be a statistically significant difference in the reported need satisfaction of the associate prepared nurse based on length of employment within a hospital." Independent t tests were conducted to determine whether there was a significant difference in need satisfaction of the five need categories, based on length of employment 0-5 and 6 or more years, of the associate prepared nurses (see Tables 16-20).

Table 16

t test Results of Security Need Satisfaction of
Associate Prepared Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> Value	Probability
0-5	18	0.89		
6+	11	1.45	-1.10	0.28

Table 17

t test Results of Social Need Satisfaction of
Associate Prepared Nurses Based on Length of Employment

<u>Length</u> <u>of Employ</u>	<u>N</u>	<u>Mean</u>	<u>t Value</u>	<u>Probability</u>
0-5	18	0.58		
6+	11	0.18	1.31	0.20

Table 18

t test Results of Esteem Need Satisfaction of
Associate Prepared Nurses Based on Length of Employment

<u>Length</u> <u>of Employ</u>	<u>N</u>	<u>Mean</u>	<u>t Value</u>	<u>Probability</u>
0-5	13	1.68		
6+	11	1.03	1.37	0.18

Table 19

t test Results of Autonomy Need Satisfaction of
Associate Prepared Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> Value	Probability
0-5	18	1.71		
6+	11	1.07	1.96	0.06

Table 20

t test Results of Actualization Need Satisfaction of
Associate Prepared Nurses Based on Length of Employment

Length of Employ	N	Mean	<u>t</u> Value	Probability
0-5	18	2.00		
6+	11	1.54	1.05	0.30

There were no significant differences noted in responses of the associate prepared nurses based on length of employment. Therefore, the third hypothesis was not supported.

Hypothesis 4 stated "There will be a statistically significant difference in the reported need satisfaction of the baccalaureate and associate prepared nurse based on length of employment within a

hospital." Two-way analysis of variance was conducted to determine whether there was a significant difference in need satisfaction, of the five need categories, based on educational preparation and length of employment (see Tables 21-25).

Table 21

Results of Two-Way Analysis of Variance Security
Need Satisfaction

<hr/>					
Source					
of	df	Sum of	Mean	<u>F</u>	<u>p</u>
Variance		Squares	Square	Ratio	Level
Within group	69	130.83	1.90		
Between group	3	2.29	0.760	.40	0.75
Total	72	133.12			
Interaction	1	0.88	0.88	0.47	0.47
<hr/>					

Table 22

Results of Two-Way Analysis of Variance Social
Need Satisfaction

<hr/>					
Source					
of	df	Sum of	Mean	<u>F</u>	<u>p</u>
Variance		Squares	Square	Ratio	Level
Within group	69	38.73	0.56		
Between group	3	1.43	0.48	0.85	0.47
Total	72	40.16			
Interaction	1	1.31	1.31	2.34	0.13

Table 23

Results of Two-Way Analysis of Variance Esteem
Need Satisfaction

<hr/>					
Source					
of	df	Sum of	Mean	<u>F</u>	<u>p</u>
Variance		Squares	Square	Ratio	Level
Within group	69	91.82	1.33		
Between group	3	6.86	2.27	1.72	0.17
Total	72	98.68			
Interaction	1	6.64	6.44	4.99	0.03

Table 24

Results of Two-Way Analysis of VarianceAutonomy Need Satisfaction

Source					
of	df	Sum of	Mean	<u>F</u>	<u>p</u>
Variance		Squares	Square	Ratio	Level
Within group	69	50.83	0.74		
Between group	3	3.29	1.10	1.49	0.22
Total	72	54.12			
Interaction	1	3.04	3.04	4.12	0.05

Table 25

Results of Two-Way Analysis of VarianceActualization Need Satisfaction

Source					
of	df	Sum of	Mean	<u>F</u>	<u>p</u>
Variance		Squares	Square	Ratio	Level
Within group	69	70.96	1.03		
Between group	3	6.65	2.22	2.16	0.10
Total	72	77.61			
Interaction	1	5.43	5.43	5.28	0.02

There were no statistically significant differences noted in responses of need satisfaction based on educational preparation and length of employment. Therefore, the fourth hypothesis was not supported.

Descriptive Analysis

Frequency distributions for need satisfaction of each of the five need categories were calculated for associate prepared and baccalaureate prepared respondents. The mean, median, mode, and standard deviations are presented for need satisfaction and need importance for both associate and baccalaureate prepared nurses (see Tables 26-29).

Table 26

Associate Prepared Need Category Importance

Need	Standard			
Category	Mean	Median	Mode	Deviation
Security	6.79	7	7	0.41
Social	5.84	6	5.5	1.00
Esteem	5.67	5.33	5	0.93
Autonomy	5.65	5.75	5.25	0.89
Actual.	6.21	6.33	7	0.73

Table 27

Baccalaureate Prepared Need Category Importance

Need				Standard
Category	Mean	Median	Mode	Deviation
Security	6.54	7	7	0.63
Social	6.04	6.25	7	0.93
Esteem	5.93	6	7	1.21
Autonomy	5.72	6	6.25	0.35
Actual.	6.33	6.33	6.33	0.68

When interpreting the results of need importance, for each need category, the higher the mean score the greater the importance of the category.

Table 28

Associate Prepared Need Category Satisfaction

Need				Standard
Category	Mean	Median	Mode	Deviation
Security	1.10	1	0	1.34
Social	0.43	0	0	0.81
Esteem	1.43	1	0.67	1.27
Autonomy	1.46	1.5	1.25	0.89
Actual.	1.83	1.66	1.66	1.13

Table 29

Baccalaureate Prepared Need Category Satisfaction

Need	Standard			
Category	Mean	Median	Mode	Deviation
Security	1.11	10	1	0.38
Social	0.49	0	0	0.71
Esteem	1.44	1.33	1	1.11
Autonomy	1.45	1.5	1.75	0.86
Actual.	1.71	2	2	0.98

When interpreting these results it is important to note that the lower the mean need satisfaction score, for each need category, the higher the perceived need satisfaction. This is because these scores are obtained by subtracting the response to part a. how much is there now, from the score on response b. how much should there be. The smaller the difference between these responses, the higher the perceived need satisfaction for the category.

Tables 30 and 31 show the ranking of need satisfaction and need importance for both the associate and baccalaureate prepared nurses. This ranking is based on the mean scores for each category.

Table 30

Associate Prepared Need Category Ranking

Need	Need	Need
Category	Satisfaction	Importance
	Ranking	Ranking
Security	2	1
Social	1	3
Esteem	3	4
Autonomy	4	5
Actual.	5	2

Table 31

Baccalaureate Prepared Need Category Ranking

Need	Need	Need
Category	Satisfaction	Importance
	Ranking	Ranking
Security	2	1
Social	1	3
Esteem	3	4
Autonomy	4	5
Actual.	5	2

There are identical rankings between the associate and baccalaureate groups in all need satisfaction and

importance rankings. This analysis demonstrates that for the associate and baccalaureate groups the need category with the greatest satisfaction is social. The need category with the greatest importance for both groups is security.

CHAPTER V

DISCUSSION AND RECOMMENDATIONS

The purpose of this study was to examine the differences in employment need satisfaction between hospital staff nurses prepared at the baccalaureate and those prepared at the associate level. In addition, this study examined the influence of length of employment on need satisfaction. There were no previous studies in the literature measuring differences in need satisfaction of the staff registered nurse based on educational preparation and length of employment. These factors have been included in other research that used different designs as the measure of satisfaction. Four hypotheses were addressed. In this chapter the findings of the study, limitations of the study, recommendations for future research, and significance to the profession will be discussed.

Discussion

Problems with the reliability for selected categories of the modified Porter Need Satisfaction Index is a limitation. The reliability of the security and social need satisfaction categories and social need importance categories are especially questionable, when computed over all degrees. Further reliability testing needs to be conducted

to substantiate the reliability of this tool.

Descriptive statistics were computed for need satisfaction and need importance scores for baccalaureate and associate prepared nurses. Need importance and need satisfaction scores were ranked based on the mean scores. The ranking of importance scores from most important to least important were found to be identical for both groups studied. Security was the need with the most importance. Autonomy was the need with the least importance. The ranking of need satisfaction scores from most satisfied to least satisfied were also found to be identical for both groups studied. Socialization was the need that was most highly satisfied. Actualization was the need with the least satisfaction.

Blalack (1986) described similar findings related to need importance and need satisfaction rankings. The 100 staff nurses used in his study ranked security as the most important need category and self-actualization as the second most important need category. Also, Blalack (1986) found that self-actualization had the lowest amount of need satisfaction of all need categories. This study yielded similar findings.

When examining the need satisfaction rankings of this study, it is clear that the satisfaction rankings

were approximately in the order of the hierarchy as described by Maslow (1970). With the exception of the security and social needs being switched, the rankings of satisfaction scores are from the lowest level need to the highest level need. Maslow (1970) asserted that as the lower level needs are satisfied, the individual will be motivated by the higher needs. If this is the case, this study sample should be focusing on the need categories of esteem, autonomy, and self-actualization.

The literature pointed to major differences in baccalaureate and associate prepared nurses on a number of variables including professional orientation, autonomy, leadership, role stress, and satisfaction. Because of these inherent differences cited, the similarities in responses between groups might not be expected.

In looking at differences in need satisfaction of the five need categories based solely on educational preparation, there were no statistically significant differences found ($p < .05$). Independent t tests were performed on the five need satisfaction categories: security, socialization, esteem, autonomy, and actualization. These tests were at first based solely on educational preparation. Based on these findings one can conclude that the associate and baccalaureate

prepared nurses, in this study, did not perceive a difference in the level of satisfaction of these needs.

In drawing the conclusion that there are no differences in the level of satisfaction of the five need categories based on educational preparation, contributing factors should be examined. A factor that may have influenced the findings could be the work environment. Perhaps the work environment, based on practices, policies, and management styles, are not different for individuals based on their educational preparation. Therefore, individuals working in these organizations do not perceive differences in expectations or rewards. Few organizations may base work role and responsibility of the staff nurse on their education. For this reason it may be expected that the feelings of satisfaction for these groups is similar. In addition, in concluding that there is no relationship between need satisfaction and educational preparation, a Type II error may have occurred because of the small sample size.

In interpreting differences in need satisfaction of nurses prepared at different levels based on length of employment, independent t tests were performed on the five need categories for the baccalaureate prepared nurse employed 0-5 years and those employed 6 or more

years. Also, independent t tests were performed on associate prepared nurses employed 0-5 years and 6 or more years. No statistically significant differences ($p < .05$) were noted for either group of nurses based on length of employment, with the exception of the self-actualization need. The baccalaureate nurses with 6 or more years employment with the organization were significantly less satisfied than those with 0-5 years employment ($p < .02$).

In drawing the conclusion that there were no differences in the level of satisfaction of the associate prepared nurses based on length of employment and baccalaureate prepared nurses based on length of employment, excluding the actualization category, contributing factors need to be examined. A factor which may contribute to these findings may be the expectations, rewards, and recognition related to seniority given to nurses in the organization. Perhaps, these nurses do not perceive that organizations give them the opportunity to advance their practice in relation to experience. If this is the case, there may be no difference in opportunities for experienced nurses to achieve increased satisfaction in the higher level needs of autonomy and actualization based solely on increased length of

employment. Other variables not studied may play a role in differences within these educational types. Such variables may include management styles, levels of practice, and recognition for accomplishments. Another factor that may contribute to the lack of significance may be that this study divided length of employment into only two groups. The literature does point to differences in satisfaction with job factors based on length of employment. These studies have divided length of employment into more categories. This study divided the length of employment into only two categories because of the small sample size. In concluding that there is no relationship between need satisfaction and length of employment, a Type II error may have occurred because of the small sample size used, particularly in the associate group.

In drawing the conclusion that there are no differences in need satisfaction based on the interaction of educational preparation and length of employment, contributing factors need to be considered. In light of other findings, this outcome was not surprising. Again, one may conclude that inherent differences in work expectations based on education and length of employment may not exist. Based on this assumption, the perceived need satisfaction of these

groups is not different. The variables studied may not be the only variables that affect need satisfaction of these two groups. Other extraneous variables may play a more important role in discerning differences between these two groups. These variables may include both work related and personal variables. Some of these may include, monetary rewards, recognition, management style, the nature of work performed (unit where they work), personal family situations, and full time versus part time employment. Again, the grouping of length of employment into only two categories may not be precise enough to detect differences based on length of employment. When drawing conclusions of no relationship existing between these variables and need satisfaction, a Type II error may have occurred because of a small sample size.

Important considerations when drawing conclusions are the professional and societal events occurring during the time the study was conducted. Such an event may be the movement of the nursing profession out of a period of shortage of practicing nurses. This change may have had an affect on the perceived importance and satisfaction of needs. A societal event occurring during this time period was the economic recession of the 1990s. This, also, may have had some affect on

the perceived importance of needs. The area of need satisfaction which may be most affected by both of these events was security. The security need in the Maslow (1970) hierarchy deals with feelings of stability, protection, and order. When a change occurs that may threaten this stability, the need may take on more importance and become a motivator. Maslow (1970) asserted that individuals will focus most strongly on the need, even a lower level need, when there is a disruption or change in the status of that need. With a professional disruption of the magnitude of shifting from shortage to hiring freezes, the security need may take on a greater importance. Measuring need satisfaction during a period of time when these events have stabilized or reversed may ascertain if these factors affected the measure of need satisfaction of this sample.

Conclusions from this study may not be generalizable to the total population of nurses. Although randomization of nurses was performed, the total population identified, five counties in Iowa, may be different from the total population of nurses. The counties included were chosen for inclusion because of the similarity they shared in having large metropolitan areas with large hospital organizations. This may

limit the generalizability to nurses not working in large hospital organizations.

Recommendations for Future Research

Further reliability testing should be conducted on this tool. In future reliability testing procedures, a larger sample size should be used.

Replication of this study could be conducted to examine if professional and societal events identified may have played a role in the findings. As nursing moves away from a cycle where a shortage has influenced practice, need satisfaction may be affected. It would be interesting to note whether similar findings would be derived during a period of nursing shortage, particularly in the need category, security.

A larger sample size should be used to decrease the likelihood of error. This would allow inclusion of more variables in the interpretation of results, such as more categories of length of employment. Additional factors to include in future research are those associated with the organization. Many researchers concerned with the work satisfaction of practicing nurses have included both work related and personal variables in their research. A study controlling both individual and organizational variables may be able to explain additional factors influencing need

satisfaction.

Research conducted to identify factors that satisfy nurses has historically measured this variable cross-sectionally. A longitudinal research design may enable organizations to identify personnel practices and policies that promote satisfaction of nurses.

Significance to Nursing

The results of this study have implications to nursing education and nursing management practices. Awareness of the perceived importance and satisfaction of the needs studied can influence strategies for program development. Since most students begin their practice in the hospital setting, these findings have implications for nurse educators. The findings of this study may be used by nurse educators in curriculum development. Because nurses prepared in both baccalaureate and associate programs seem to view the importance and satisfaction of needs similarly, it may be time to assure that both curriculums prepare students for the realities of nursing practice. Faculty of academic programs may want to examine factors associated with need satisfaction and incorporate associated content into the preparation of students. Although, there are inherent differences in the preparation of students in programs, the students'

work experiences and expectations seem to be similar.

Implications for nursing management within the hospital organization are important because a relationship was found between length of employment and factors associated with actualization for the baccalaureate nurse. Nursing management may use these findings to support decisions to develop strategies related to recognition and rewards for experienced nurses. Because the needs of esteem, autonomy, and self-actualization are the least satisfied for both groups of nurses, incorporating strategies to increase the opportunity for attainment of these needs from work is supported. Strategies may include reward systems that are based on education and experience. For example, clinical advancement systems advance prestige and pay based on education and experience. This may make it possible for nurses to attain esteem, autonomy, and self-actualization from their work. Also, organizational designs such as shared governance may make it possible for practicing nurses to have more control over their practice. This may increase their ability to achieve these higher level needs. In this way nursing management may take steps to reduce turnover and increase productivity.

Nurses who are satisfied with the opportunities for

professional growth and autonomy may be better able to provide quality nursing care to the consumer. By making the work environment more satisfying to practicing nurses, the nursing profession may have the energy to focus on other issues that face the profession of nursing. With greater participation in the health care system and the political system, nursing as a profession may take steps to raise the satisfaction of practicing nurses in the system and consumers with the system. Strategies to support the continued growth of practicing nurses will have benefits for the profession of nursing, the organization, and the consumer.

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Appendix A

Need Satisfaction Questionnaire

code:

On the following pages are 13 characteristics connected with nursing positions. For each characteristic, you will be asked 3 questions:

- a. How much of the characteristic is there now connected with your position.
- b. How much of the characteristic do you think should be connected with your position.
- c. How important is this characteristic to you?

You will rate each of the above questions on a 7 point scale. 1 is a minimum rating, and 7 is a maximum rating. You will circle the number that reflects your feeling.

- a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
- b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
- c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

The above questions will appear under each of the 13 characteristics. Please mark all scales:

1. The opportunity for independent thought and action in my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)
2. The feeling of security in my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

3. The feeling of worthwhile accomplishment in my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)
4. The authority connected with my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)
5. The feeling of self-fulfillment a person gets from being in my position (that is, the feeling of being able to use one's unique capabilities, realizing one's potentialities.)
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)
6. The prestige of my position inside the hospital (that is, the regard received from others in the hospital.)
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)
7. The opportunity for personal growth and development in my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

8. The prestige of my position outside the hospital
(that is, the regard received from others not in the hospital.)
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

9. The feeling of self-esteem a person gets from being in my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

10. The opportunity, in my position, for participation in the setting of goals.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

11. The opportunity to develop close friendships in my position.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

12. The opportunity, in my position, for participation in the determination of methods and procedures.
 - a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

13. The opportunity, in my position, to give help to other people.
- a. How much is there now?
(min) 1 2 3 4 5 6 7 (max)
 - b. How much should there be?
(min) 1 2 3 4 5 6 7 (max)
 - c. How important is this to me?
(min) 1 2 3 4 5 6 7 (max)

Comments:

Appendix B

Demographic Questionnaire

code:

Please answer the following demographic information by placing an X in the space provided next to the category that describes you.

1. Which of the below describes your place of employment.
☐ acute care hospital
☐ long term care facility
☐ public health (home care) agency
☐ Doctor's office
☐ other (specify) _____
2. Which of the below accurately describes your current employment status.
☐ part time, less than 20 hours per week
☐ part time, 20 to 39 hours per week
☐ full time, 40 or more hours per week
3. Number of years you have been employed in your current position in this institution.

4. Which of the below describes your entry level education as a registered nurse.
☐ Associate degree
☐ Diploma
☐ Bachelors degree
5. Which of the below is your current educational level in nursing.
☐ Associate degree
☐ Diploma degree
☐ Bachelors degree
☐ Master's degree

6. Which of the below categories describes your current nursing position.
_____ staff nurse position
_____ management position (specify) _____
_____ other (specify) _____
7. Which of the below describes the ownership of the institution where you are currently employed.
_____ federal, state, county, or local government
_____ privately owned, non-profit organization
_____ privately owned, for-profit organization
8. Are you currently enrolled in a baccalaureate or graduate degree program of study?
_____ Yes
_____ No
9. Age on last birthday _____
10. Indicate your gender
_____ Male
_____ Female

Appendix C

Test-Retest Request

January 24, 1991

Dear Colleague:

I am requesting that you participate in an initial review and scoring of two questionnaires that will be included in a study of satisfaction of Registered Nurses. This study is part of my work in the Masters of Science Nursing program at Drake University. You have been chosen to receive these questionnaires because you are similar to, but not included in the sample for the study.

I am interested in identifying problems with clarity of the questionnaires. Clarity is of importance, as these questionnaires will be mailed to the study sample, and I will have no contact with them.

Also, I am interested in identifying the average length of time it takes you to complete the questionnaires. You can help me answer these questions, by including any comments you have on clarity and indicating the length of time it takes you to complete these questionnaires. Please include these comments directly on the questionnaires.

To identify the reliability of the results obtained from these questionnaires, I will be sending identical questionnaires to you in two weeks. While alterations in the questionnaires will not be evident at that time, be assured that the questionnaires sent to the study sample will reflect your comments on clarity.

I need your participation. While I really hope you participate, you are not required to do so. The return of your questionnaires will constitute consent to participate. Your identity will remain confidential. Please do not write your name on the questionnaires. You will notice a code number present on the first page of the questionnaires. This code number will allow me to track the return of the questionnaires. Upon return of the second mailing of the questionnaires or 1 month after the second mailing your name and code number will be destroyed.

Again, your participation is greatly appreciated.

Sincerely,

Kimberly Johnston-Hanson RN,BSN
1237 10th St. Nevada,
IA. 50201

Appendix D

Test-Retest Results

Table 1

Pearson Product-Moment Correlation CoefficientsAssociate Prepared (N = 8)

Variable	<u>r</u> value
Security S	.52
Security I	.79
Social S	.30
Social I	.33
Esteem S	.91
Esteem I	.90
Autonomy S	.78
Autonomy I	.89
Actualization S	.88
Actualization I	.69

S = Need Satisfaction

I = Need Importance

Table 2

Pearson Product-Moment Correlation CoefficientBaccalaureate Prepared (N = 7)

Variable	<u>r</u> value
Security S	-.11
Security I	.62
Social S	-.19
Social I	.31
Esteem S	.44
Esteem I	.28
Autonomy S	.52
Autonomy I	.52
Actualization S	.74
Actualization I	.72

S = Need Satisfaction

I = Need Importance

Table 3

Pearson Product-Moment Correlation CoefficientOverall Degrees (N = 15)

Variable	<u>r</u> value
Security S	-.09
Security I	.50
Social S	.12
Social I	.31
Esteem S	.75
Esteem I	.79
Autonomy S	.64
Autonomy I	.78
Actualization S	.75
Actualization I	.69

S = Need Satisfaction

I = Need Importance

Appendix E

Cover Letter

May 15, 1991

Dear Colleague:

I am requesting that you participate in a study concerned with the satisfaction of Registered Nurses. I believe this is a very important and timely issue facing practitioners and managers in the nursing profession. Your name has been randomly selected from five counties in Iowa. Four hundred Registered Nurses will be receiving these questionnaires. I am hoping you will complete the questionnaires and return them to me.

This study is part of my graduate work in the Masters of Science Nursing program at Drake University. Through this research study, I will identify facets of a nurse's work which contribute to satisfaction, motivation and retention.

I need your participation. While I really hope you participate, you are not required to participate in this study. The return of your questionnaires will constitute consent to participate. The identity of those who return questionnaires will remain confidential. Please do not write your name on the questionnaires. You will notice a code number on the first page of the questionnaires. This code will allow me to track the return of the questionnaires. Your name and code number will be destroyed upon return of the questionnaires or 2 months following the mailing of the questionnaires. In this way confidentiality can be assured in the future.

Your participation requires that you answer two questionnaires. These two questionnaires total 22 questions. The first questionnaire pertains to job characteristics and the second asks for demographic information. It will take approximately 10 minutes to complete both.

Again, your participation is greatly appreciated. If you are interested in the results of this study, please return the request for results form with your questionnaire. If you have any questions beyond this information contact Mary Hansen Thesis Advisor, Drake University, Des Moines, IA. #515-271-3161.
Sincerely,

Kimberly S. Johnston-Hanson RN, BSN
1237 10th Street Nevada, IA. 50201

Appendix F

Request For Results Form

Please send me the results of this study, when completed, to the name and address below.

Name and Address:

Appendix G

Reminder Letter

June 20, 1991

Dear Colleague:

This letter is regarding the questionnaires you previously received. I would like to request that if you have not already completed and returned the questionnaires, that you please do so now. As explained in the letter that accompanied the questionnaires, this study is part of my work in the Masters of Science Nursing program at Drake University.

I feel this study, pertaining to satisfaction of Registered Nurses, is important for our profession.

Again, if you have not completed and returned your questionnaires, please do so now. Your participation is very important and is greatly appreciated.

Sincerely,

Kimberly Johnston-Hanson RN,BSN
1237 10th Street
Nevada, IA 50201

Appendix H
Return Letter

November 30, 1992

Dear Registered Nurse:

In 1991, I contacted you to request your participation in a study that I was conducting as part of the requirements for a Masters of Science Nursing degree from Drake University, Des Moines, IA. You were given the option to return the request for results form, if you wished to receive that information.

Enclosed you will find the Abstract of the study. This Abstract describes the purpose, sample, findings and conclusions of the study.

Thank you for your interest in this study.

Sincerely,

Kim Johnston-Hanson RN, BSN
1237 10th St. Nevada, IA.
50201